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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,326	06/07/2002	Ashley Robert Hanna	14728.00002	3169

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EXAMINER
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HURLEY, SHAUN R

ART UNIT	PAPER NUMBER
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3765

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/857,326

**Applicant(s)**

HANNA, ASHLEY ROBERT

**Examiner**

Shaun R Hurley

**Art Unit**

3765

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-14 is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☒ Claim(s) 4-6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nicely in view of Waters.

Nicely teaches an unspun yarn (Figure 4) comprising a longitudinal fiber assembly of substantially untwisted and parallel fibers (10) and a longitudinal reinforcing core thread (Column 2, line 3; tungsten wire core can make up filament, filament is in fiber assembly, thus reinforcing wire core is in assembly), and two reinforcing threads (12) containing the core therein by way of covering the core. While Nicely teaches covering the core, including a possible wrap in lieu of a braid (Column 2, lines 67-68), he fails to specifically teach that each reinforcing thread is helically wound around the fiber assembly extending in a single longitudinal direction, wherein at predetermined intervals the wound directions reverse, which Waters teaches (Figure 1; detail 3). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize such a wrap as taught by Waters in the yarn of Nicely, so as to retain the unspun core of Nicely in a more reliable manner. In the braid of Nicely, if one reinforcing thread is cut, it can unravel causing the entire wrap to fail, whereas if one reinforcing thread of Waters is cut, the integrity of the wrap is still maintained, and the core

Art Unit: 3765

protected. The ordinarily skilled artisan would have appreciated this teaching and understood to use the wrap as taught by Waters in the yarn of Nicely.

***Allowable Subject Matter***

3. Claims 4-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. Claims 7-14 are allowed.

***Response to Arguments***

5. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Nicely teaches the invention as explained above, but teaches a covering that is braided. Nicely does, however, specifically state that a wrap may be used in lieu of a braid. Waters teaches a reversing twisted wrap is a well known way of wrapping a core, and as Examiner has explained previously, the yarn of Nicely can obviously be wrapped with such a well known reverse twisted wrap. Applicant's argument is that neither Nicely, nor Waters, teaches why such a combination would be obvious. Examiner's position is that Nicely specifically teaches and plainly states, that the covering may be a wrap, as are well known. Waters thusly teaches a well known wrap structure, capable of providing all the necessary

Art Unit: 3765

benefits as required by Nicely, mainly, maintaining the integrity of the core material. Examiner then explains the benefit of using such a wrap as taught by Waters, in terms of well known structural features. Examiner's position is that a braid **will** fail when a component strand is severed. By the very nature of a braided structure, the strands are interwoven at their crossover points, and when one strand fails, the second strand is allowed to pass past the crossover point, thus unwinding and causing the braid to fail. With the well known reverse twist wrap of Waters, if one strand fails, the structure of the wrap is still maintained since there are no essential crossover points to unwind. The ordinarily skilled artisan would understand the basic principals of a braid versus other wraps, and would have understand the obvious benefits of using such wraps.

#### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Art Unit: 3765

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shaun R Hurley whose telephone number is (571) 272-4986. The examiner can normally be reached on Mon - Fri, 6:30 am - 3:00 pm, off second Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John J Calvert can be reached on (571) 272-4983. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SRH  
10 January 2005

  
JOHN J. CALVERT  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700